Exhibit E

Habitat Assessments

E.1

WEST 2014 Piping Plover Report

Dakota Access Pipeline Project

2014 Piping Plover and Least Tern Habitat Assessment

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

INTRODUCTION

Dakota Access, LLC is proposing to build a new crude oil pipeline to transport crude petroleum from strategic receipt points in the Bakken/Three Forks production area in North Dakota to Patoka, Illinois. The Dakota Access Pipeline Project (DAPL Project) is an approximate 1,100 mile long, light crude oil pipeline project beginning near Stanley, North Dakota, and ending at Patoka, Illinois.

An assessment was conducted in 2014 to locate and describe potential habitat for federally listed piping plover and interior least tern along the proposed route to support USACE and USFWS consultations and permitting. Results of the 2014 effort related to these species are described below. Results for other species (Sprague's pipit, Dakota skipper, and black-footed ferret) are found in separate reports.

No critical habitat has been designated for the interior least tern in North Dakota. Critical habitat has been designated for the Northern Great Plains breeding population of piping plover in five states, including North Dakota (50 CFR 17). Critical habitat consists of several prairie alkali wetlands and surrounding shoreline, including 200 feet of upland above the high water mark; river channels and associated sandbars and islands; reservoirs and their sparsely vegetated shorelines, peninsulas, and islands; and inland lakes and their sparsely vegetated shorelines and peninsulas. Critical habitat for the piping plover is shown on the Avoidance and Exclusion maps (Exhibit A.2) in the DAPL Project North Dakota Public Service Commission Application.

No prairie alkali wetlands designated as critical habitat are along the current DAPL Project route. However, the entire Missouri River system and reservoirs are designated critical habitat up to the normal high water line. All counties crossed by the DAPL Project border the Missouri River and the DAPL Project crosses the river twice. However both of these crossings will be drilled and no impacts to the habitat are expected.

Since the proposed DAPL Project will cross through counties where piping plover and least tern are known to occur, an assessment of habitat for the species along the pipeline route was conducted. The purpose of the assessment was to document suitable piping plover or least tern habitat that occurs within the proposed pipeline survey corridor (400 feet total width, 200 feet either side of the centerline) for use in Project construction planning.

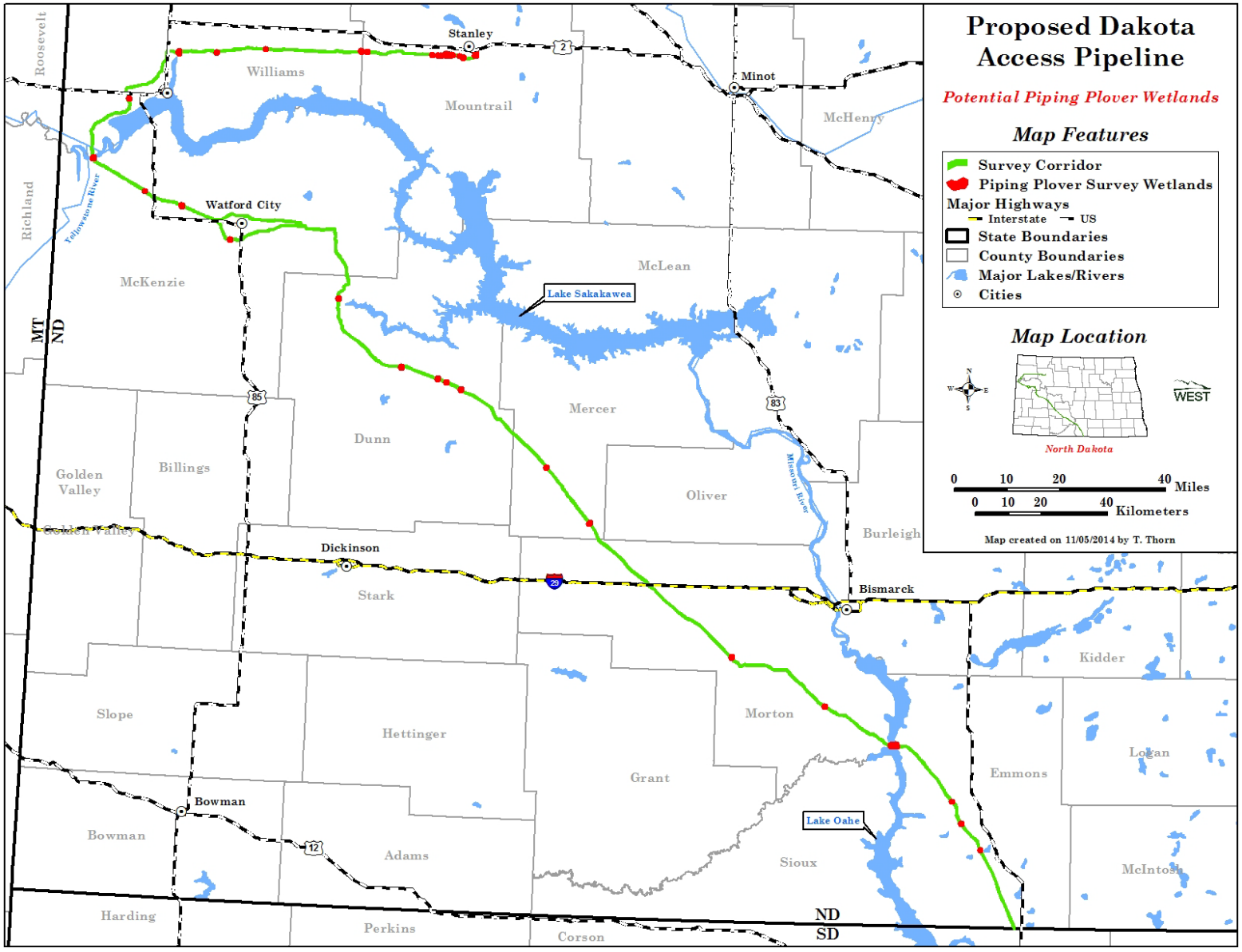

Figure 1. Project area and potential piping plover and least tern habitat areas based for 2014 surveys on desktop review.

For the purposes of the 2014 assessment, piping plover habitat was defined as:

> Exposed, sparsely vegetated wetland habitat greater than 1 ha in size (based on research by Licht [2001], who found that piping plovers nested in wetlands ranging from 3 to more than 2,000 ha and piping plovers observed nesting on Mud Lake at Lostwood National Wildlife Refuge, which is 1.3 ha in size [C. Aron, USFWS, pers. comm.]); a minimum size of 1 ha was considered to be especially inclusive.

For the purposes of the 2014 assessment, interior least tern habitat was defined as:

> Sparsely vegetated river sandbars (Faanes 1983). Rivers, shorelines, and rocky riparian areas provide additional courtship, nesting, foraging, sheltering, brood-rearing, and dispersal habitat for the least tern (National Audubon Society 2014; Faanes 1983), and adjacent wetlands are used for supplemental foraging of small fish (USFWS 2013). This is limited to the Missouri River crossings.

The assessment included both a desktop analysis and field verification/sampling. This report describes the methods used to conduct the assessment and present the results. These data can be used to assist planning by identifying which areas may support piping plover or least tern based on site characteristics.

METHODS

The assessment included a preliminary desktop analysis followed by field surveys. The field work was conducted by experienced WEST GIS specialists and biologists in August – early October, 2014 on accessible tracts of land.

ArcGIS 10.2.2 was used to select NWI wetlands (dissolved into single basins) which intersected the survey corridor. Any wetland greater than or equal to 1 ha that was crossed by the survey corridor was selected to be surveyed. Both Missouri River crossings were reviewed for both least tern and piping plover habitat potential.

Piping Plover

Field verification consisted of visiting each of the preselected wetlands that fall entirely or partially within the 400 foot wide survey corridor identified during the desktop analysis, and collecting data on various wetland characteristics that comprise suitable piping plover habitat; these characteristics include:

- Presence of exposed sand, gravel or salt-encrusted substrate;
- Presence of cattails (*Typha* spp.);
- Presence of open water;
- Visual or auditory observations of piping plover; and
- To a lesser extent, the presence of halophytic vegetation, specifically, *Salicornia rubra*, *Suaeda calceoliformis, Atriplex patula, Hordeum jubatum, Distichilis spicata,* and *Puccinellia nuttalliana.*

Generally speaking, presence of sandy and/or gravelly exposed substrate next to the water's edge of wetlands or rivers with open water and few cattails, and perhaps with halophytes present are considered more favorable for nesting by piping plover. These data were recorded within the survey corridor (if possible) near the edge of each wetland in an area that was determined to be representative. These characteristics were also mapped for each wetland on an 8.5 x 11 inch paper map containing the aerial image of the wetland.

Most wetlands that were investigated occur in depressions in the landscape; their size can vary considerably from year to year depending on precipitation and groundwater. The overall precipitation for the first part of 2014 was generally above-average in this region of North Dakota (NDSCO 2014); therefore many of the wetlands were at or near their full capacity. Before approaching each wetland, observers scanned and listened for piping plovers at the wetland. Each sample point and actual water's edge (if applicable) were recorded on a Trimble GeoXH, using the North Dakota State Plane North, NAD 83 survey feet coordinate system. Photographs of each wetland were taken, including overviews and photos of substrate.

Least Tern

Potential habitat for least terns along the DAPL Project is limited to the Missouri River crossings. Both areas are known to have potential habitat depending on the year and flows during the nesting season (May - August) as they have exposed sand/gravel bars as well as backwaters for foraging.

RESULTS

The desktop analysis found 38 wetlands that were greater than 1 ha, and, therefore, were considered potentially suitable piping plover habitat, per past USFWS direction, crossed by the DAPL Project survey corridor (Table 1 and 2, Figure 1). Table 2 lists all wetlands that were identified for survey through the desktop analysis as well as each wetland on accessible tracts was surveyed, along with the corresponding tract number(s); date of visit; presence of sandy/gravel substrate, cattails, and halophytes; observations of piping plover; and conclusion for plover habitat suitability. Inaccessible tracts (no permission or no access) containing wetlands of suitable piping plover habitat per the desktop analysis are also listed in Table 2 and designated with an "NC" for not checked during 2014 field season. All wetlands are at least 1 ha in size; some wetlands are contained mostly within the right of way (ROW), while only a small portion of other wetlands fall within the ROW. Completed data sheets are provided in Appendix A. For the least tern, only the two Missouri River crossings were identified as potential habitat for further review.

Results from the desktop analysis and field survey efforts are also presented on the Environmental Features maps (Exhibit A.4) in the DAPL Project North Dakota Public Service Commission Application.

Table 1. Number of Potentially Suitable Piping Plover Habitat Wetlands along the Proposed Dakota Access Pipeline.

County	Wetlands Within Survey Corridor
Mountrail	14
Williams	6
McKenzie	4
Dunn	5
Mercer	2
Morton	3
Emmons	4
TOTAL	**38 (36 individual basins)**

The presence of piping plover or least tern at a site would indicate that the area is suitable habitat, regardless of the presence or absence of other features. No evidence, visual or auditory, indicating presence of either species, was found at any of the wetlands investigated. Additional surveys will be conducted during the 2015 field season for piping plover and least tern.

Wetlands were eliminated as potentially suitable piping plover habitat if they exhibited one of the following characteristics:

- Lacking an exposed sandy/gravel substrate along most of the shoreline;

- Presence of cattails, or;
- No or little open water.

Based on these criteria, two of the 38 wetlands were determined to exhibit suitable habitat for piping plover based on field conditions in 2014. These wetlands include PPW-WI102a and PPW-WIMC-MSRV (the Missouri River crossing in the supply line portion of the project) (Table 2). Of all the wetlands visited, 5 wetlands contained a limited amount of exposed substrate with sand, gravel, and/or salt crust, 8 wetlands contained cattails (> 5% of wetland cover), and halophytic vegetation was observed at 4 wetlands (Table 2).

One of the 38 wetlands was determined to currently exhibit suitable habitat for least terns based on field conditions in 2014 (PPW-WIMC-MSRV; the Missouri River crossing in the supply line portion of the project, the main line crossing was not accessible for field surveys in 2014).

Table 2. Summary of Habitat Characteristics of Potentially Suitable Piping Plover and Least Tern Habitat within the Proposed DAPL Project Corridor

Wetland Number	Mile Post[a]	Date of Visit	Exposed Substrate with Sand, Gravel, and/or Salt Crust	Cattails Present	Halophytic Vegetation Present	Piping Plovers Observed	Percent Vegetated (Survey Corridor)	Suitable Habitat: Y/N Based on 2014 surveys and definition of suitable habitat
PPW-MT002a		NC						
PPW-MT005a		10/1/2014	No	Yes	No	No	ND	N
PPW-MT011a		10/1/2014	No	Yes	No	No	ND	N
PPW-MT013a		10/1/2014	No	No	No	No	100	N
PPW-MT016a		NC						
PPW-MT017a		NC						
PPW-MT018a		NC						
PPW-MT019a		10/2/2014	No	Yes	No	No	ND	N
PPW-MT019b		10/2/2014	Yes	Yes	No	No	ND	N
PPW-MT022a		NC						
PPW-MT023a		NC						
PPW-MT023b		NC						
PPW-MT027a		NC						
PPW-MT054a		10/1/2014	No	Yes	No	No	ND	N
PPW-WI001a		10/1/2014	No	No	No	No	ND	N
PPW-WI045a		9/29/2014	No	No	No	No	100	N
PPW-WI074a		9/29/2014	No	No	No	No	ND	N
PPW-WI102a		9/29/2014	Yes	No	Yes	No	ND	Y
PPW-WI188a		NC						
PPW-WIMC-MSRV[b, c]		9/27/2014	Yes	No	No	No	0	Y
PPW-MC037a		NC						
PPW-MC058a		9/23/2014	Yes	No	Yes	No	91.08	N
PPW-MC093,502a		NC						
PPW-DU046a		NC						
PPW-DU063a		9/17/2014	No	Yes	Yes	No	100	N
PPW-DU067a		9/16/2014	No	Yes	No	No	77.13	N
PPW-DU171a		NC						
PPW-DU-LITMSRV		NC						
PPW-ME017a		9/12/2014	unk	No	No	No	100	N
PPW-ME045a		9/8/2014	Yes	Yes	Yes	No	91.08	N
PPW-MO158a		NC						
PPW-MOEM-MSRV[b, c]		NC						Y
PPW-MO-LITHRT		NC						
PPW-EM048a		NC						
PPW-EM060a		NC						
PPW-EM078a		8/27/2014	No	No	No	No	100	N

[a] SL = Supply Line milepost; ML = Main Line milepost

[b] Piping Plover Critical Habitat

[c] Least Tern Habitat (i.e. Missouri River)

NC = not checked, but identified for survey through the desktop analysis

ND = not determined

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APPENDIX A. Field Data Sheets

Available upon request

E.2

WEST 2014 Habitat Assessment Report

Dakota Access Pipeline Project

2014 Habitat Assessment

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TABLE OF CONTENTS

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1.0 INTRODUCTION

Dakota Access, LLC is proposing to build a new crude oil pipeline to transport crude petroleum from strategic receipt points in the Bakken and Three Forks production areas in North Dakota to Patoka, Illinois. The Dakota Access Pipeline Project (DAPL Project) is an approximate 1,100 mile long, light crude oil pipeline project beginning near Stanley, North Dakota, and ending at Patoka, Illinois.

An assessment was conducted in 2014 to locate and describe grasslands along the DAPL Project route (corridor width 400 feet [ft] wide [122 meters {m}]) in North Dakota and to evaluate them for characteristics favorable to sensitive bird, butterfly and mammal species. Results of the 2014 effort related to grasslands, Sprague's pipit, and Dakota skipper are presented below. Results for other species (black-footed ferret, least tern, and piping plover) are found in separate reports.

Native and non-native grasslands provide courtship, nesting, foraging, sheltering, brood-rearing, and dispersal habitat for many species of migratory birds protected under the Migratory Bird Treaty Act (MBTA), including a candidate species for potential listing as threatened or endangered under the federal Endangered Species Act (ESA), the Sprague's pipit (*Anthus spragueii*). Native prairie also provides habitat for butterfly species, including one was recently listed as a threatened species under the federal ESA, the Dakota skipper (*Hesperia dacotae*).

Specific objectives for the 2014 surveys included:

- Identify and quantify areas of grasslands dominated by native or non-native species that may be used by migratory birds, pursuant to the MBTA;
- Determine if grassland areas were previously tilled or not;
- Identify potentially suitable habitat for Sprague's pipit;
- Identify potentially suitable habitat for the Dakota skipper;
- Identify potentially suitable habitat for the black-footed ferret (separate report);
- Identify potentially suitable habitat for the least tern (separate report);
- Identify potentially suitable habitat for piping plover (separate report).

The grassland and native prairie habitat assessment included both a desktop analysis and field verification/sampling. This report describes the methods used to conduct the assessment and present the results. The following descriptions of species were adapted from Merjent's *2014 Habitat Assessment Protocol (Rev 1*, September 22, 2014).

1.1 Sprague's pipit

Sprague's pipit is a federal candidate species for the Endangered Species Act and is identified in all seven counties crossed by the project in North Dakota. The species occurs in both native prairie and non-native grasslands. Although Sprague's pipits are more abundant and appear to prefer nesting in native prairie, they have been observed performing territorial displays in non-native grasslands and nesting in non-native hayfields in part of their range (Jones 2010; USFWS

2013a). Sprague's pipits prefer to breed in large patches of prairie with a typical minimum size of 145 hectares (approximately 358 acres) and a range of 69 to 314 hectares (170 to 776 acres; USFWS 2013a). Vegetation structure appears to be an important predictor of Sprague's pipit occurrence. They typically breed in open grasslands with low shrub cover and avoid edge habitat between grassland and woody vegetation (USFWS 2013a).

1.2 Dakota Skipper

Native prairie provides habitat for all four basic life stages of the Dakota skipper, which is federally threatened in three counties crossed by the Project (Mountrail, McKenzie and Dunn). This species needs high-quality prairie habitat that is dominated by native species and is untilled. In particular, it uses dry-mesic mixed grass and wet-mesic tallgrass prairie remnants characterized by alkaline and composite soils (McCabe, 1981; Royer and Marrone, 1992).

Big and little bluestem (*Andropogon gerardii* and *Schizachyrium scoparium*) predominate at favored wet-mesic prairies, and the following three nectar plants bloom synchronously with the adult skipper flight period: wood lily (*Lilium philadelphicum*), harebell (also known as bluebell bellflower; *Campanula rotundifolia*), and smooth camus (*Zigadensus elegans*, USFWS 2013b, c). In preferred dry-mesic upland sites (typically found in rolling terrain) bluestems and needlegrasses (*Hesperostipa* spp.) are typically present, as well as *L. philadelphicum* and *C. rotundifolia*, but *Z. elegans* is typically absent.

Nectar-producing aster family species (e.g., purple coneflower [also known as blacksamson Echinacea, *Echinacea angustifolia],* upright prairie coneflower [*Ratibida columnifera*] and blanketflowers [*Gaillardia* spp.]) are often abundant in dry-mesic prairie (USFWS, 2013b). When *E. angustifolia* is present adult skipper flight periods may be tied to its blooming period in prairie habitats (Royer and Marrone, 1992). Larval survival for Dakota skipper is influenced by soil characteristics such as moisture, humidity, pH, surface temperature, near-surface humidity, and compaction (Cochrane and Delphey, 2002).

2.0 METHODS

The assessment included a desktop analysis followed by field surveys and was conducted by experienced WEST GIS specialists and biologists in August-early October 2014. The field surveys were conducted by two crews with two members each. One member on the crew, at a minimum, was a botanist familiar with grassland vegetation of North Dakota.

2.1 Desktop Analysis and Survey Preparation

The desktop analysis was completed using ArcGIS, ArcMap 10.2.2. Grasslands within one-half mile on either side of the proposed centerline (revision 1) were digitized using the following: a combination of 2012 National Agricultural Imagery Program (NAIP) aerial imagery, 2006 National Land Cover Data (NLCD) land use/land cover, 2004 North Dakota Gap Analysis Program (GAP)

land use/land cover, and 2010 and 2011 National Agricultural Statistical Service (NASS) land classification.

Grasslands were digitized along the portion of the proposed DAPL Project route that is generally considered the Great Plains. For the purposes of this Project, that included all of North Dakota (2006 EPA ecoregions).

All disturbed areas were excluded along with the visible road right-of-way (road ditch). Trees/shrubs were also excluded if they made up approximately 20 percent or more of a grassland polygon. Large wetlands, based on National Wetland Inventory (NWI) data, were digitized out, with "large" being a relative broad term (e.g., greater than 20 acres).

For grasslands requiring general plant species composition determination, a 25 meter (m) by 1 m transect was sampled. To select the transect locations; a starting sampling point was randomly placed within each section of grassland by dividing the grassland's total width by the number of samples required. If the grassland had a width along the pipeline route of 0.1 mile or less, no random starting sample point is needed. For grasslands 101 to 600 m in length along the route, one starting point was randomly selected. In grasslands that were 601 to 800 m in length, two survey starting points were selected. Each additional 400 m of grassland, required an additional plant survey starting point to be selected.

Using a random point generator tool within the Geospatial Modelling Environment software (http://www.spatialecology.com/gme/), a single starting sampling point was determined within each grassland block. The direction (360° compass bearing) of the sampling transect was randomly selected (http://www.random.org/integers/). Using NAIP 2012/2013 aerial imagery, a randomly selected transect direction was selected until the entire 25 m transect could be sampled without obstructions or ROW boundary limitations.

2.2 Grassland Survey

Field surveys consisted of visiting each grassland area within the survey corridor identified during the desktop analysis. The survey corridor width was 400 ft. wide (122 m), 200 ft. on either side of planned pipeline route. The centerline was loaded on Trimble GeoXH GPS units and was used for navigation in the field. The first step in the field survey was to confirm and document the location of each grassland area within the survey corridor for the purpose of quantifying habitat that may be impacted by the project. Each grassland area was assigned a unique "Site ID" number according to the nomenclature described in the protocol. A "begin" point was recorded on the GPS unit at the western or northern end of each grassland area and an "end" point was recorded at the eastern end to confirm the location within the survey corridor, or vice versa. If the area was not grassland, a note was made on the current habitat present (e.g., wetland, cropland, etc.).

Grasslands that were confirmed were then classified as dominated by native or non-native species based on the rule of dominance (i.e., the vegetation category that had the highest percent cover). The classification made using the rule of dominance was confirmed by conducting a belt transect for each distinct grassland area within the survey corridor that was at least about one-

tenth mile (160 m) in length. The belt transect consisted of laying a 25 meter tape across vegetation that was representative of each grassland area. The location and direction (compass degrees) of the belt transects was assigned during the desktop review. If the location ended up in a different habitat type (e.g., wetland), it was moved to the closest area of grassland. The original compass direction was still used if it kept the belt-transect from being placed in the other habitat. If not, the botanist rotated clockwise in 10 degree increments until the belt-transect was clear of non-grassland habitat and still within the pipeline corridor. Observers noted if the belt-transect was moved and the distance (m) on datasheet. The dominant plant group at each 0.1-m by 0.5-m segment (50 total segments) along the tape was identified and recorded according to a hierarchical listing of plant group types for north-central and northwestern North Dakota (Grant et al. 2004; Appendix A). The identification of the plant group was made by the botanist, and the plant groups were tallied on a data sheet by an assistant. The location of each belt-transect was recorded on the GPS and a photograph of the belt-transect was taken. For longer stretches of grassland area within the survey corridor, a belt-transect was conducted every quarter mile. For these areas, a determination of dominance by native or non-native species was made by totaling all the native segments and all the non-native segments for all the belts within each grassland area. For grassland areas less than one-tenth mile in length, a visual determination of native or non-native dominance was made. Some grassland areas were found to be hayed at the time of the survey. No belt-transect was conducted in hayed grasslands since grasses were generally unidentifiable; hayed grassland areas were assumed to be dominated by non-native species. In a few cases, grasslands were found to be so heavily grazed that the plants were not identifiable; these areas were classified as “unknown”.

For purposes of this assessment and following the provided protocol, native and non-native grasslands were defined based on the dominance of native or non-native vegetative species as described above; past land use practices, such as tilling, were not considered.

Whether a grassland plot was on previously tilled land was determined for all plots when possible. Notes were taken as to whether evidence was observed that the grassland might have been previously tilled at some point in the past. Such evidence generally included piles of rocks and boulders (an indicator of past tilling), topography (e.g., steep slopes that may not have been able to be tilled), and tell-tale signatures on aerial photos that might have been rows

2.3 Sprague’s Pipit

In those counties where Sprague’s pipit is known to occur, each grassland area within the survey corridor that was assessed for Sprague’s pipit habitat. This assessment combined data from a desktop analysis with data collected in the field.

From the desktop analysis of aerial photos using GIS, plot size was used to determine the suitability of a grassland area within the survey corridor to be considered Sprague’s pipit habitat. Biologists believe that, during the breeding season, Sprague’s pipits prefer large patches of native grassland with a minimum size ranging from 69 to 214 hectares (Davis 2003 *in* Jones 2010). Therefore, to be considered potential Sprague’s pipit habitat, any grassland within the survey

corridor in the counties where Sprague's pipit is known to occur had to be part of a larger grassland area at least 69 hectares in size.

The field data were collected in conjunction with the native/non-native species dominance determination since most grassland areas were crossed in their entirety on foot and observations of Sprague's pipit habitat features could be made.

Data collected in the field included the following Sprague's pipit habitat features:

- Dominance of grass and sedge cover
- Less than 20 percent shrub and brush cover
- Less than 10 percent bare ground
- Absence of trees at territory scale (2-3 hectares [5-7.5 acres]; a few scattered trees or tree groups was deemed acceptable)

2.4 Dakota Skipper

In those counties where Dakota skipper is known to occur each untilled grassland area within the survey corridor was assessed for Dakota skipper habitat. This was done in conjunction with the native/non-native species dominance determination since most grassland areas were crossed in their entirety on foot and observations of Dakota skipper habitat characteristics could be made. Data were collected on the following Dakota skipper habitat features per the protocol:

- Presence of plants typical of native wet-mesic prairie: big and little bluestem, wood lily, harebell, and smooth camas, Rocky Mountain blazingstar (*Liatris ligulistylis*), Canada goldenrod (*Solidago canadensis*), strict blue-eyed grass (*Sisyrinchium montanum*), common goldstar (*Hypoxis hirsuta*), and black-eyed susan;
- Presence of plants typical of upland (dry) prairie (often found on ridges and hillsides): bluestem grasses, needlegrasses, pale purple coneflower (*Echinacea pallida*), purple coneflower, wood lily, blanketflowers, harebell, upright prairie coneflower, black-eyed susan (*Rudbeckia hirta*), blacksamson Echinacea, and prairie milkvetch (*Astragalus laxmannii*);
- Presence of preferred nectar plants: wood lily, harebell, and smooth camas.

In general, discrete areas that had little bluestem and one or more of the food/shelter plants, nectar plants, or plants typical of native bluestem prairie were defined as potential Dakota skipper habitat. Untilled grasslands, whether dominated by native or non-native species were surveyed for Dakota skipper habitat. When an area with the right combination of plants was found, the area was recorded on a GPS using the polygon feature, and the relevant species were recorded on a datasheet. If it was unclear if all species were present to constitute Dakota skipper habitat due to time of year (e.g., only little bluestem was present but uncertain on presence or number of nectar plants), a point was collected to indicate further review may be required in 2015.

3.0 RESULTS

Results of all assessments performed in 2014 for grassland habitat and tillage determination, Sprague's pipit habitat and Dakota skipper habitat are presented below. Completed data sheets from the field surveys are available upon request. Shapefiles of all data collected have been provided to Merjent. A digital file of photographs is available upon request.

During the 2014 survey effort there was approximately 7,955 acres of grassland identified through the desktop analysis within the July survey corridor. These areas were to be ground surveyed, as access was available, in 2014. Of this total, WEST surveyed 5,375 acres, or roughly 67%. Areas not surveyed were not accessible during 2014 surveys.

Results from the desktop analysis and field survey efforts are presented on the Environmental Features maps (Exhibit A.4) in the DAPL Project North Dakota Public Service Commission Application.

3.1 Grassland Habitat and Tillage

During the 2014 survey season 323 grassland plots were identified along the route; 239 were dominated by non-native vegetation, 79 were dominated by native vegetation, and five were classified as unknown due to grassland being cut for hay or otherwise grass too short to identify (Appendix B). Most plots were dominated by a cover of Kentucky bluegrass (*Poa pratensis*) and/or smooth brome (*Bromus inermis*).

A total of 118 grassland plots were determined to be previously tilled at some point in the past, while for 205 plots a "not tilled" assessment was made (Appendix B). All the plots considered not-tilled were on hilly, often rolling, terrain with at least some native vegetation and an absence of rock piles; however, scattered rocks were present on some.

3.2 Sprague's Pipit

Sprague's pipit is known to occur in all seven counties crossed by the DAPL Project. For the 2014 surveys, 139 grassland plots are at least 69 ha (minimum size guideline) and met the field criteria for Sprague's pipit habitat (Appendices B and C). All grasslands that provide suitable Sprague's pipit habitat have less than 20 percent shrub cover, less than 10 percent bare ground, and an absence of trees at territory scale (2 -3 hectares, although a few scattered trees or tree groups was deemed acceptable). No auditory or visual observations of Sprague's pipit were noted during the field survey.

3.3 Dakota Skipper

Dakota skipper is known to occur in three counties (Mountrail, McKenzie and Dunn) crossed by the DAPL Project. These three counties contained 32 grassland plots found suitable for Dakota skipper habitat in the survey corridor in 2014 (Appendices B and D). These include plots which contained several nectar plants (upright prairie coneflower, pale purple coneflower, harebell, black-eyed susan and blanketflower spp.) and typical prairie plants like little bluestem and

needlegrasses. Several habitat points and one polygon were recorded where habitat was thought to exist, but nectar plant species were past maturity and unidentifiable. There were a total of 21 tracts in (nine in McKenzie, 11 in Dunn, and one in Mountrail) that may have to be revisited in 2015 field season for verification and positive identification of species.

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APPENDIX A. Data Sheets
Available upon request

APPENDIX B. Grassland Habitat Summary Table

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHMT005a	ND-MT-005	Mountrail	No	N/A	No	Non-native
GLHMT006a	ND-MT-006	Mountrail	No	N/A	Yes	Non-native
GLHMT008a	ND-MT-007, -008	Mountrail	No	N/A	No	Non-native
GLHMT009.200a	ND-MT-009, .200, -010	Mountrail	Yes	N/A	Yes	Non-native
GLHMT011a	ND-MT-011	Mountrail	Yes	N/A	No	Non-native
GLHMT012a	ND-MT-012, -013	Mountrail	Yes	N/A	No	Non-native
GLHMT012b	ND-MT-011, -012	Mountrail	No	N/A	No	Native
GLHMT015a	ND-MT-015, -016	Mountrail	No	N/A	Yes	Non-native
GLHMT021a	ND-MT-021	Mountrail	No	N/A	No	Non-native
GLHMT030a	ND-MT-030	Mountrail	Yes	N/A	Yes	Non-native
GLHMT031a	ND-MT-031, .300, -032, -033	Mountrail	Yes	N/A	Yes	Non-native
GLHMT036a	ND-MT-036, -037	Mountrail	No	N/A	Yes	Non-native
GLHMT040a	ND-MT-038, -040	Mountrail	No	N/A	Yes	Non-native
GLHMT040b	ND-MT-040, -041	Mountrail	No	N/A	No	Non-native
GLHMT041a	ND-MT-041, -042, -043, -044	Mountrail	Yes	N/A	No	Native
GLHMT050a	ND-MT-050	Mountrail	No	N/A	No	Non-native
GLHMT050b	ND-MT-050	Mountrail	No	N/A	No	Native
GLHMT050c	ND-MT-050	Mountrail	No	N/A	No	Native
GLHMT051a	ND-MT-051	Mountrail	No	N/A	No	Non-native
GLHMT054a	ND-MT-054	Mountrail	Yes	N/A	No	Non-native
GLHWI001a	ND-WI-001, -002	Williams	Yes	N/A	No	Native
GLHWI005a	ND-WI-005, -006	Williams	Yes	N/A	Yes	Non-native
GLHWI009a	ND-WI-009, .305	Williams	Yes	N/A	No	Non-native
GLHWI017a	ND-WI-018	Williams	No	N/A	No	Non-native
GLHWI027a	ND-WI-027, -028	Williams	Yes	N/A	No	Non-native
GLHWI033a	ND-WI-032, -033	Williams	Yes	N/A	Yes	Native
GLHWI036a	ND-WI-036	Williams	Yes	N/A	Yes	Non-native
GLHWI038a	ND-WI-038	Williams	No	N/A	Yes	Non-native
GLHWI052a	ND-WI-052, -053	Williams	No	N/A	No	Non-native
GLHWI064a	ND-WI-064, -065, .300, .305, -066, -067	Williams	Yes	N/A	No	Non-native
GLHWI069a	ND-WI-069, 070, 071	Williams	No	N/A	No	Non-native
GLHWI075a	ND-WI-075, -076	Williams	No	N/A	No	Non-native
GLHWI076a	ND-WI-076	Williams	No	N/A	No	Non-native
GLHWI077a	ND-WI-077	Williams	No	N/A	Yes	Non-native
GLHWI080.205	ND-WI-080.205	Williams	No	N/A	No	Non-native
GLHWI081.200a	ND-WI-080, .200	Williams	Yes	N/A	No	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHWI083a	ND-WI-081.200, -082, -083	Williams	No	N/A	No	Non-native
GLHWI085a	ND-WI-084, -085	Williams	No	N/A	Yes	Non-native
GLHWI086a	ND-WI-085, -086, -087	Williams	Yes	N/A	No	Non-native
GLHWI088a	ND-WI-088, -089	Williams	Yes	N/A	No	Non-native
GLHWI090a	ND-WI-090	Williams	Yes	N/A	No	Native
GLHWI091a	ND-WI-090, -091, -092	Williams	Yes	N/A	No	Native
GLHWI093a	ND-WI-093	Williams	No	N/A	Yes	Non-native
GLHWI098a	ND-WI-094, -096, -097, .200, -098, .200, .300	Williams	No	N/A	Yes	Non-native
GLHWI100a	ND-WI-100, -101, -102, -103, -104	Williams	Yes	N/A	Yes	Non-native
GLHWI116a	ND-WI-116, -117	Williams	Yes	N/A	No	Non-native
GLHWI123a	ND-WI-123, -124, -125, -126	Williams	Yes	N/A	No	Native
GLHWI130a	ND-WI-130	Williams	No	N/A	No	Native
GLHWI134a	ND-WI-131, -032, -033, -034	Williams	Yes	N/A	No	Native
GLHWI139a	ND-WI-139, -140, .300	Williams	Yes	N/A	No	Non-native
GLHWI179a	ND-WI-178, -179, -180	Williams	Yes	N/A	No	Non-native
GLHWI181a	ND-WI-180, -181	Williams	No	N/A	No	Native
GLHWI182a	ND-WI-181. .300, -182	Williams	No	N/A	No	Native
GLHWI182b	ND-WI-182	Williams	No	N/A	No	Non-native
GLHWI203a	ND-WI-203, -204, -205, -206	Williams	Yes	N/A	No	Native
GLHWI206a	ND-WI-206	Williams	Yes	N/A	No	Native
GLHWI212a	ND-WI-212, -213, -214, -215, -216, -217, -218, -219	Williams	Yes	N/A	No	Native
GLHWI220a	ND-WI-220	Williams	No	N/A	Yes	Non-native
GLHWI220b	ND-WI-220, -221, -222	Williams	No	N/A	No	Native
GLHWI224a	ND-WI-224	Williams	Yes	N/A	No	Non-native
GLHWI225a	ND-WI-225, -226, -227	Williams	Yes	N/A	No	Native
GLHWI229a	ND-WI-229, .200, -230, -231	Williams	Yes	N/A	No	Native
GLHWI231a	ND-WI-231, -232	Williams	Yes	N/A	No	Native
ND-WI-231, -232	ND-WI-232, -233, -234, -235, -236, -237	Williams	Yes	N/A	No	Native
GLHWI251a	Unk	Williams	No	N/A	No	Non-native
GLHMC017a	ND-MC-017	McKenzie	No	No	Yes	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHMC020a	ND-MC-020	McKenzie	Yes	No	Yes	Non-native
GLHMC044a	ND-MC-044, -045	McKenzie	Yes	No	Yes	Non-native
GLHMC045b	ND-MC-045, -047	McKenzie	No	No	Yes	Non-native
GLHMC051a	ND-MC-049.200, -051	McKenzie	Yes	Yes	No	Native
GLHMC053a	ND-MC-053, -054	McKenzie	No	No	No	Non-native
GLHMC054a	ND-MC-054	McKenzie	Yes	No	No	Native
GLHMC055a	ND-MC-055, -056	McKenzie	No	Yes	No	Non-native
GLHMC057a	ND-MC-057	McKenzie	Yes	No	No	Native
GLHMC058a	ND-MC-057, -058, -059, -060	McKenzie	Yes	No	No	Native
GLHMC061a	ND-MC-060, -061	McKenzie	Yes	No	Yes	Non-native
GLHMC066a	ND-MC-065, -066, -067	McKenzie	Yes	No	Yes	Non-native
GLHMC067a	ND-MC-067, -068	McKenzie	Yes	No	Yes	Non-native
GLHMC068a	ND-MC-068, -069, -070	McKenzie	Yes	No	Yes	Non-native
GLHMC127a	ND-MC-127	McKenzie	Yes	Yes	Yes	Non-native
GLHMC129a	ND-MC-128, -129	McKenzie	Yes	No	Yes	Non-native
GLHMC131a	ND-MC-130, .200, -131, -132, .300, -133, .300, -13	McKenzie	Yes	Yes	No	Non-native
GLHMC134a	ND-MC-134, -135, .300	McKenzie	Yes	Yes	No	Native
GLHMC137a	ND-MC-136, -137, -138	McKenzie	No	Yes	No	Non-native
GLHMC151a	ND-MC-151, -152	McKenzie	No	No	No	Non-native
GLHMC152a	ND-MC-152	McKenzie	No	Yes	No	Native
GLHMC153a	ND-MC-153	McKenzie	No	No	No	Native
GLHMC155a	ND-MC-155, .300	McKenzie	No	No	No	Non-native
GLHMC158a	ND-MC-158	McKenzie	No	Yes	No	Non-native
GLHMC159a	ND-MC-159	McKenzie	No	No	No	Non-native
GLHMC169a	ND-MC-169	McKenzie	Yes	Yes	No	Non-native
GLHMC169b	ND-MC-169, -170	McKenzie	Yes	No	No	Non-native
GLHMC175a	ND-MC-157, -158	McKenzie	No	Yes	No	Native
GLHDU001a	ND-DU-001, -002	Dunn	No	Yes	No	Non-native
GLHDU031a	ND-DU-030, -031	Dunn	No	Yes	No	Native
GLHDU031b	ND-DU-031, -032	Dunn	No	Yes	No	Native
GLHDU032a	ND-DU-032	Dunn	No	Yes	No	Native
GLHDU032c	ND-DU-032, -033	Dunn	Yes	Yes	No	Native
GLHDU033a	ND-DU-033	Dunn	Yes	Yes	No	Non-native
GLHDU033b	ND-DU-033, -034	Dunn	Yes	Yes	No	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHDU034a	ND-DU-034a	Dunn	No	Yes	No	Native
GLHDU034b	ND-DU-034	Dunn	No	Yes	No	Native
GLHDU034c	ND-DU-034	Dunn	No	Yes	No	Native
GLHDU035a	ND-DU-035	Dunn	Yes	Yes	No	Native
GLHDU047b	ND-DU-067	Dunn	Yes	No	No	Non-native
GLHDU048a	ND-DU-048	Dunn	Yes	Yes	No	Native
GLHDU049a	ND-DU-049	Dunn	No	No	Yes	Non-native
GLHDU049b	ND-DU-049	Dunn	No	No	No	Non-native
GLHDU051a	ND-DU-051	Dunn	No	No	Yes	Non-native
GLHDU052a	ND-DU-052	Dunn	No	No	Yes	Non-native
GLHDU057a	ND-DU-057	Dunn	No	No	Yes	Non-native
GLHDU059a	ND-DU-059, -060	Dunn	Yes	No	Yes	Non-native
GLHDU060a	ND-DU-060	Dunn	No	No	No	Non-native
GLHDU062a	ND-DDU-062	Dunn	Yes	No	No	Non-native
GLHDU063a	ND-DU-062, -063, -064	Dunn	No	No	Yes	Non-native
GLHDU063b	ND-DU-063, -064	Dunn	No	No	Yes	Non-native
GLHDU067a	ND-DU-067	Dunn	No	No	No	Non-native
GLHDU068a	ND-DU-068	Dunn	Yes	No	Yes	Non-native
GLHDU077a	ND-DU-077	Dunn	Yes	Yes	No	Non-native
GLHDU079a	ND-DU-079	Dunn	Yes	No	No	Non-native
GLHDU080a	ND-DU-080	Dunn	Yes	No	No	Non-native
GLHDU081a	ND-DU-081	Dunn	Yes	No	Yes	Non-native
GLHDU081b	ND-DU-081	Dunn	Yes	No	Yes	Non-native
GLHDU083a	ND-DU-083	Dunn	No	No	No	Non-native
GLHDU084a	ND-DU-084	Dunn	Yes	No	Yes	Non-native
GLHDU085a	ND-DU-085, -086, -087	Dunn	Yes	No	No	Non-native
GLHDU087a	ND-DU-087, -088	Dunn	Yes	No	No	Non-native
GLHDU093a	ND-DU-093, -094	Dunn	No	Yes	No	Non-native
GLHDU094b	ND-DU-094	Dunn	No	Yes	No	Native
GLHDU094c	ND-DU-094, -095, -096	Dunn	Yes	Yes	No	Native
GLHDU098a	ND-DU-098	Dunn	No	No	No	Non-native
GLHDU099a	ND-DU-099, -100, -101	Dunn	Yes	No	No	Non-native
GLHME001a	ND-ME-001, -002	Mercer	No	N/A	No	Non-native
GLHME002a	ND-ME-002	Mercer	Yes	N/A	No	Non-native
GLHME003a	ND-ME-003	Mercer	No	N/A	No	Native
GLHME003b	ND-ME-003	Mercer	No	N/A	No	Non-native
GLHME004a	ND-ME-004, -005	Mercer	No	N/A	No	Native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHME008a	ND-ME-008	Mercer	No	N/A	No	Non-native
GLHME009a	ND-ME-008, -009, -010, -011	Mercer	Yes	N/A	No	Non-native
GLHME012a	ND-ME-012, -013	Mercer	No	N/A	No	Non-native
GLHME013a	ND-ME-013	Mercer	No	N/A	No	Non-native
GLHME013b	ND-ME-013	Mercer	No	N/A	No	Native
GLHME013c	ND-ME-013	Mercer	No	N/A	No	Native
GLHME013d	ND-ME-013, .300, -014, -015	Mercer	No	N/A	No	Native
GLHME015a	GLHME015a	Mercer	Yes	N/A	No	Native
GLHME017b	ND-ME-017	Mercer	No	N/A	Yes	Non-native
GLHME017c	ND-ME-017	Mercer	No	N/A	No	Non-native
GLHME017d	ND-ME-017, -018, -019, -020	Mercer	Yes	N/A	No	Native
GLHME021a	ND-ME-021	Mercer	Yes	N/A	No	Native
GLHME022a	ND-ME-022	Mercer	Yes	N/A	No	Non-native
GLHME023a	ND-ME-022, -023	Mercer	Yes	N/A	No	Non-native
GLHME024a	ND-ME-023, -024	Mercer	No	N/A	No	Non-native
GLHME025a	ND-ME-025	Mercer	No	N/A	No	Native
GLHME026a	ND-ME-026	Mercer	No	N/A	No	Native
GLHME027a	ND-ME-027	Mercer	No	N/A	No	Native
GLHME028a	ND-ME-028	Mercer	No	N/A	No	Non-native
GLHME029a	ND-ME-029	Mercer	No	N/A	No	Non-native
GLHME029b	ND-ME029	Mercer	Yes	N/A	No	Non-native
GLHME029c	ND-ME-029	Mercer	No	N/A	No	Native
GLHME030a	ND-ME-030	Mercer	No	N/A	No	Non-native
GLHME031a	ND-ME-031	Mercer	Yes	N/A	Yes	Non-native
GLHME032a	ND-ME-032	Mercer	No	N/A	No	Native
GLHME033a	ND-ME-032, -033	Mercer	Yes	N/A	No	Native
GLHME037a	ND-ME-037, -038, -039	Mercer	Yes	N/A	No	Non-native
GLHME040a	ND-ME-039, -040	Mercer	Yes	N/A	Yes	Non-native
GLHME040b	ND-ME-040, -041	Mercer	No	N/A	No	Non-native
GLHME042a	ND-ME-042, -043	Mercer	Yes	N/A	No	Non-native
GLHME043a	ND-ME-043	Mercer	Yes	N/A	Yes	Non-native
GLHME043b	ND-ME-043, -044	Mercer	No	N/A	Yes	Non-native
GLHME045a	ND-ME-045, -046	Mercer	No	N/A	No	Non-native
GLHME048a	ND-ME-048	Mercer	No	N/A	No	Non-native
GLHME050a	ND-ME-049, -050	Mercer	Yes	N/A	No	Non-native
GLHME055a	ND-ME-055	Mercer	No	N/A	No	Non-native
GLHMO002a	ND-MO-002	Morton	Yes	N/A	No	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHMO006a	ND-MO-006	Morton	No	N/A	No	Non-native
GLHMO007a	ND-MO-007	Morton	Yes	N/A	No	Non-native
GLHMO018a	ND-MO-018	Morton	No	N/A	No	Non-native
GLHMO019a	ND-MO-019	Morton	No	N/A	Yes	Non-native
GLHMO021a	ND-MO-021	Morton	Yes	N/A	No	Non-native
GLHMO031a	ND-MO-031, -032, -033, -034	Morton	Yes	N/A	Yes	Non-native
GLHMO035a	ND-MO-034, -035	Morton	No	N/A	Yes	Non-native
GLHMO036a	ND-MO-034.300, -036	Morton	Yes	N/A	No	Non-native
GLHMO037a	ND-MO-037, -038, -039	Morton	No	N/A	No	Non-native
GLHMO040a	ND-MO-040	Morton	No	N/A	Yes	Non-native
GLHMO041a	ND-MO-041	Morton	No	N/A	No	Non-native
GLHMO041b	ND-MO-041	Morton	No	N/A	Yes	Non-native
GLHMO042a	ND-MO-042, -043	Morton	Yes	N/A	Yes	Non-native
GLHMO045a	ND-MO-044.305, -045	Morton	No	N/A	No	Non-native
GLHMO047a	ND-MO-047, -048	Morton	Yes	N/A	No	Non-native
GLHMO049a	ND-MO-048, -049, -050	Morton	No	N/A	No	Non-native
GLHMO051a	ND-MO-051, -052	Morton	No	N/A	No	Non-native
GLHMO059a	ND-MO-059, -061	Morton	?	N/A	No	Non-native
GLHMO063a	ND-MO-063, -0364, -065, -065.200	Morton	No	N/A	No	Non-native
GLHMO066a	ND-MO-066	Morton	No	N/A	No	Non-native
GLHMO067a	ND-MO-066, -067	Morton	No	N/A	Yes	Non-native
GLHMO068a	ND-MO-068	Morton	No	N/A	Yes	Non-native
GLHMO068b	ND-MO-068	Morton	No	N/A	Yes	Non-native
GLHMO069a	ND-MO-069	Morton	No	N/A	No	Non-native
GLHMO071a	ND-MO-071	Morton	No	N/A	No	Non-native
GLHMO071b	ND-MO-071	Morton	No	N/A	No	Non-native
GLHMO071c	ND-MO-071	Morton	No	N/A	No	Non-native
GLHMO071d	ND-MO-071	Morton	No	N/A	No	Non-native
GLHMO072a	ND-MO-072	Morton	No	N/A	No	Non-native
GLHMO072b	ND-MO-072	Morton	No	N/A	No	Non-native
GLHMO073b	ND-MO-073	Morton	No	N/A	Yes	Non-native
GLHMO074a	ND-MO-074	Morton	Yes	N/A	No	Non-native
GLHMO080a	ND-MO-079, -080	Morton	Yes	N/A	Yes	Native
GLHMO081a	ND-MO-081	Morton	No	N/A	No	Non-native
GLHMO081b	ND-MO-081, -082	Morton	No	N/A	No	Non-native
GLHMO084a	ND-MO-084	Morton	No	N/A	Yes	Non-native
GLHMO085a	ND-MO-084, -085	Morton	No	N/A	Yes	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHMO087a	ND-MO086, -087	Morton	No	N/A	Yes	Non-native
GLHMO087b	ND-MO-087	Morton	No	N/A	Yes	Non-native
GLHMO087c	ND-MO-087	Morton	No	N/A	No	Non-native
GLHMO089a	ND-MO-089	Morton	No	N/A	Yes	Non-native
GLHMO089b	ND-MO-089	Morton	No	N/A	No	Non-native
GLHMO090a	ND-MO-089, -090	Morton	No	N/A	No	Non-native
GLHMO090b	ND-MO-090, -091, -092	Morton	No	N/A	No	Non-native
GLHMO092a	ND-MO-090, -092	Morton	No	N/A	No	Non-native
GLHMO092b	ND-MO-092	Morton	No	N/A	No	Non-native
GLHMO109a	ND-MO-109	Morton	No	N/A	No	Non-native
GLHMO114a	ND-MO-114, -115	Morton	No	N/A	No	Native
GLHMO119a	ND-MO-118, -119	Morton	Yes	N/A	Yes	Non-native
GLHMO121a	ND-MO-181, -119, -1220, -121	Morton	No	N/A	Yes	Non-native
GLHMO122a	ND-MO-122, -123	Morton	No	N/A	Yes	Non-native
GLHMO127a	ND-MO-127	Morton	Yes	N/A	Yes	Non-native
GLHMO129a	ND-MO-127, -129	Morton	Yes	N/A	Yes	Non-native
GLHMO131a	ND-MO-130, -131, -132	Morton	Yes	N/A	Yes	Native
GLHMO134a	ND-MO-133, -134	Morton	No	N/A	Yes	Native
GLHMO142a	ND-MO-142	Morton	No	N/A	Yes	Non-native
GLHMO142b	ND-MO-142	Morton	No	N/A	Yes	Non-native
GLHMO143.300a	ND-MO-142, -143	Morton	Yes	N/A	Yes	Non-native
GLHMO144a	ND-MO-141, -144, -145	Morton	No	N/A	Yes	Non-native
GLHMO146a	ND-MO-145, -146	Morton	No	N/A	No	Native
GLHMO147a	ND-MO-147	Morton	No	N/A	No	Native
GLHMO148a	ND-MO-148, -149	Morton	Yes	N/A	No	Non-native
GLHMO149a	ND-MO-148, -149	Morton	Yes	N/A	No	Native
GLHMO150a	ND-MO-149, -150	Morton	No	N/A	Yes	Non-native
GLHMO151a	ND-MO-151	Morton	No	N/A	Yes	Non-native
GLHMO151b	ND-MO-151	Morton	Yes	N/A	No	Non-native
GLHMO153a	ND-MO-152, -153	Morton	No	N/A	Yes	Non-native
GLHMO158a	ND-MO-157, -158	Morton	Yes	N/A	Yes	Non-native
GLHMO160b	ND-MO-160	Morton	Yes	N/A	No	Native
GLHMO160c	ND-MO-160, -161, -162	Morton	Yes	N/A	No	Native
GLHMO162a	ND-MO-162	Morton	Yes	N/A	Yes	Non-native
GLHMO162b	ND-MO-162	Morton	No	N/A	Yes	Non-native
GLHMO170a	ND-MO-170	Morton	No	N/A	Yes	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHMO170b	ND-MO-170.501	Morton	Yes	N/A	No	Non-native
GLHMO170c	ND-MO-170, .501, -171.501	Morton	Yes	N/A	Yes	Non-native
GLHMO171.501a	ND-MO-171.501, -172,501	Morton	No	N/A	No	Non-native
GLHMO172.501a	ND-MO-172.501	Morton	No	N/A	No	Non-native
GLHMO172.501b	ND-MO-172.501	Morton	No	N/A	No	Native
GLHMO173.501a	ND-MO-173.501	Morton	No	N/A	No	Native
GLHMO174.501a	ND-MO-174.501	Morton	Yes	N/A	No	Non-native
GLHMO177.501a	ND-MO-175.501. -176.501, -177, .501, -178,	Morton	No	N/A	No	Non-native
GLHMO180a	ND-MO-180, -181	Morton	No	N/A	No	Native
GLHMO184a	ND-MO-184, -185, -186	Morton	No	N/A	No	Native
GLHMO190a	ND-MO-187, -188, -189, -190, -191, -192	Morton	No	N/A	No	Native
GLHMO193a	ND-MO-193, .200	Morton	No	N/A	Yes	Non-native
GLHMO196a	ND-MO-194, -195, -196, -197	Morton	No	N/A	No	Native
GLHMO197a	ND-MO-197	Morton	No	N/A	No	Non-native
GLHEM002a	ND-EM-001, -002	Emmons	No	N/A	No	Non-native
GLHEM003a	ND-EM-003	Emmons	No	N/A	No	Non-native
GLHEM004a	ND-EM-004, -005	Emmons	No	N/A	Yes	Non-native
GLHEM005a	ND-EM-005, .200, -006	Emmons	Yes	N/A	No	Non-native
GLHEM006a	ND-EM-006, .300, -007, -008	Emmons	Yes	N/A	No	Non-native
GLHEM009a	ND-EM-006.300, -008, -009, -010	Emmons	Yes	N/A	Yes	Non-native
GLHEM011a	ND-EM-011, -012	Emmons	Yes	N/A	Yes	Non-native
GLHEM012a	ND-EM-012	Emmons	Yes	N/A	Yes	Unk
GLHEM013a	ND-EM-013, -014	Emmons	Yes	N/A	No	Native
GLHEM015a	ND-EM-015, -016	Emmons	Yes	N/A	No	Non-native
GLHEM023a	ND-EM-023, .300, -024, -025	Emmons	Yes	N/A	No	Native
GLHEM025b	ND-EM-025	Emmons	No	N/A	Yes	Non-native
GLHEM025c	ND-EM-026, -027	Emmons	Yes	N/A	No	Native
GLHEM027a	ND-EM-026, -027	Emmons	Yes	N/A	Yes	Non-native
GLHEM028a	ND-EM-028	Emmons	No	N/A	Yes	Non-native
GLHEM028b	ND-EM-028	Emmons	Yes	N/A	Yes	Non-native

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHEM029a	ND-EM-028, -029, -030	Emmons	Yes	N/A	No	Native
GLHEM031a	ND-EM-031, -032	Emmons	Yes	N/A	No	Non-native
GLHEM032a	ND-EM-032	Emmons	Yes	N/A	No	Native
GLHEM033a	ND-EM-032, -033	Emmons	Yes	N/A	Yes	Non-native
GLHEM034a	ND-EM-034	Emmons	Yes	N/A	No	Non-native
GLHEM036a	ND-EM_036, -037, -037.200	Emmons	Yes	N/A	Yes	Non-native
GLHEM037a	ND-EM-037, -038	Emmons	No	N/A	Yes	Non-native
GLHEM038a	ND-EM-038, -039, -040	Emmons	No	N/A	No	Non-native
GLHEM040a	ND-EM-040	Emmons	Yes	N/A	Yes	Native
GLHEM041a	MD-EM-041, -042, -043	Emmons	No	N/A	No	Native
GLHEM044a	ND-EM-044	Emmons	Yes	N/A	Yes	Non-native
GLHEM050a	ND-EM-050	Emmons	Yes	N/A	Yes	Non-native
GLHEM050b	ND-EM-050	Emmons	Yes	N/A	Yes	Non-native
GLHEM051a	ND-EM-051	Emmons	No	N/A	Yes	Non-native
GLHEM052a	ND-EM-052	Emmons	No	N/A	Yes	Non-native
GLHEM052b	ND-EM-052	Emmons	No	N/A	Yes	Non-native
GLHEM054a	ND-EM-054, -055	Emmons	Yes	N/A	Yes	Non-native
GLHEM055a	ND-EM-055	Emmons	No	N/A	Yes	Non-native
GLHEM056a	ND-EM-056	Emmons	No	N/A	Yes	Non-native
GLHEM056b	ND-EM-056	Emmons	No	N/A	Yes	Non-native
GLHEM056c	ND-EM-056	Emmons	No	N/A	Yes	Non-native
GLHEM056d	ND-EM-056, -056.300	Emmons	No	N/A	Yes	Non-native
GLHEM058a	ND-EM-058	Emmons	No	N/A	No	Native
GLHEM065a	ND-EM-065	Emmons	No	N/A	Yes	Non-native
GLHEM065b	ND-EM-065	Emmons	No	N/A	Yes	Non-native
GLHEM068a	ND-EM-068	Emmons	Yes	N/A	Yes	Non-native
GLHEM069a	ND-EM-069	Emmons	Yes	N/A	Yes	Non-native
GLHEM070.501a	ND-EM-070.501	Emmons	Yes	N/A	Yes	Non-native
GLHEM070a	ND-EM-070, -071	Emmons	Yes	N/A	Yes	Non-native
GLHEM072.501a	ND-EM-072.501, -076	Emmons	Yes	N/A	No	Non-native
GLHEM074a	ND-EM-074	Emmons	No	N/A	Yes	Non-native
GLHEM076a	ND-EM-076	Emmons	Yes	N/A	No	Non-native
GLHEM088a	ND-EM-088	Emmons	No	N/A	Yes	Non-native
GLHEM089a	ND-EM-089	Emmons	No	N/A	Yes	Unk
GLHEM093a	ND-EM-093, -094, -095	Emmons	No	N/A	Yes	Unk

Appendix B. Field verified grassland habitat within the DAPL Project survey corridor during 2014 with targeted feature identified. "N/A" (Not Applicable) indicates that the evaluation was not performed as species not in that county.

Grassland ID Number	Tract Number(s)[1]	County	Sprague's Pipit Habitat?	Dakota Skipper Habitat?	Previously Tilled?[2]	Grassland Type
GLHEM095a	ND-EM-093, -094, -095	Emmons	No	N/A	No	Native
GLHEM102a	ND-EM-101, -102	Emmons	No	N/A	Yes	Non-native
GLHEM107a	ND-EM-107	Emmons	Yes	N/A	No	Unk
GLHEM108a	ND-EM-108	Emmons	Yes	N/A	Yes	Non-native
GLHEM110a	ND-EM-109, -110	Emmons	No	N/A	Yes	Non-native
GLHEM112a	ND-EM-112	Emmons	No	N/A	No	Non-native
GLHEM116a	ND-EM-116	Emmons	No	N/A	No	Non-native
GLHEM123a	ND-EM-123	Emmons	No	N/A	No	Unk
GLHEM127a	ND-EM-126, -127	Emmons	Yes	N/A	No	Non-native
GLHEM128a	ND-EM-128	Emmons	No	N/A	Yes	Non-native

[1] Tract numbers are based on land-ownership codes provided by Merjent;

[2] "Previously tilled" refers to observations made by surveyors as to whether each specific grassland had evidence that it was previously tilled or not (see Section 2.2)

APPENDIX C. Sprague's Pipit Habitat Summary Table

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHMT009.200a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHMT011a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHMT012a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHMT030a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHMT031a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHMT041a	Mountrail	✓		Yes	Yes	Yes	Yes
GLHMT054a	Mountrail		✓	Yes	Yes	Yes	Yes
GLHWI001a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI005a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI009a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI027a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI033a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI036a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI064a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI081.200a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI086a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI088a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI090a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI091a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI100a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI116a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI123a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI134a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI139a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI179a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI203a	Williams	✓		Yes	Yes	Yes	Yes

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHWI206a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI212a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI224a	Williams		✓	Yes	Yes	Yes	Yes
GLHWI225a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI229a	Williams	✓		Yes	Yes	Yes	Yes
GLHWI231a	Williams	✓		Yes	Yes	Yes	Yes
ND-WI-231, -232	Williams	✓		Yes	Yes	Yes	Yes
GLHMC020a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC044a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC051a	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC054a	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC057a	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC058a	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC061a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC066a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC067a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC068a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC127a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC129a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC131a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC134a	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC158b	McKenzie	✓		Yes	Yes	Yes	Yes
GLHMC169a	McKenzie		✓	Yes	Yes	Yes	Yes
GLHMC169b	McKenzie		✓	Yes	Yes	Yes	Yes
GLHDU032c	Dunn	✓		Yes	Yes	Yes	Yes
GLHDU033a	Dunn		✓	Yes	Yes	Yes	Yes

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHDU033b	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU035a	Dunn	✓		Yes	Yes	Yes	Yes
GLHDU047b	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU048a	Dunn	✓		Yes	Yes	Yes	Yes
GLHDU059a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU062a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU068a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU077a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU079a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU080a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU081a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU081b	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU084a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU085a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU087a	Dunn		✓	Yes	Yes	Yes	Yes
GLHDU094c	Dunn	✓		Yes	Yes	Yes	Yes
GLHDU099a	Dunn		✓	Yes	Yes	Yes	Yes
GLHME002a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME009a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME015a	Mercer	✓		Yes	Yes	Yes	Yes
GLHME017d	Mercer	✓		Yes	Yes	Yes	Yes
GLHME021a	Mercer	✓		Yes	Yes	Yes	Yes
GLHME022a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME023a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME029b	Mercer		✓	Yes	Yes	Yes	Yes
GLHME031a	Mercer		✓	Yes	Yes	Yes	Yes

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHME033a	Mercer	✓		Yes	Yes	Yes	Yes
GLHME037a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME040a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME042a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME043a	Mercer		✓	Yes	Yes	Yes	Yes
GLHME050a	Mercer		✓	Yes	Yes	Yes	Yes
GLHMO002a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO007a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO021a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO031a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO036a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO042a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO047a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO074a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO080a	Morton	✓		Yes	Yes	Yes	Yes
GLHMO119a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO127a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO129a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO131a	Morton	✓		Yes	Yes	Yes	Yes
GLHMO143.300a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO148a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO149a	Morton	✓		Yes	Yes	Yes	Yes
GLHMO151b	Morton		✓	Yes	Yes	Yes	Yes
GLHMO158a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO160b	Morton	✓		Yes	Yes	Yes	Yes
GLHMO160c	Morton	✓		Yes	Yes	Yes	Yes

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHMO162a	Morton		✓	Yes	Yes	Yes	Yes
GLHMO170b	Morton		✓	Yes	Yes	Yes	Yes
GLHMO170c	Morton		✓	Yes	Yes	Yes	Yes
GLHMO174.501a	Morton		✓	Yes	Yes	Yes	Yes
GLHEM005a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM006a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM009a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM011a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM012a	Emmons	Unk	Unk	Yes	Yes	Yes	Yes
GLHEM013a	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM015a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM023a	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM025c	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM027a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM028b	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM029a	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM031a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM032a	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM033a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM034a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM036a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM040a	Emmons	✓		Yes	Yes	Yes	Yes
GLHEM044a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM050a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM050b	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM054a	Emmons		✓	Yes	Yes	Yes	Yes

Appendix C. Habitat features and suitability of grasslands for Sprague's Pipit within DAPL Project Environmental Survey Corridor, greater than 69 hectares.

Grassland ID Number	County	Dominance of grass and sedge cover:		Less than 20% shrub and brush cover?	Less than 10% bare ground?	Absence of trees at territory scale?	Suitable Habitat?
		Native	Non-Native				
GLHEM068a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM069a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM070.501a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM070a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM072.501a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM076a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM107a	Emmons	Unk	Unk	Yes	Yes	Yes	Yes
GLHEM108a	Emmons		✓	Yes	Yes	Yes	Yes
GLHEM127a	Emmons		✓	Yes	Yes	Yes	Yes

APPENDIX D. Dakota Skipper Summary Table

Appendix D. Habitat features and suitability of grasslands for Dakota skipper in the DAPL Project Environmental Survey Corridor.

Site ID Number[1]	County	Typical Bluestem and Upland Prairie Plants[2]	Larval Food Plants[2]	Nectar Plants[2]
GLHMT040b	Mountrail	ECAN, bluestem grasses, needlegrasses	SCSC	RACO, ECAN
GLHMT041a	Mountrail	ECAN, Bluestem grasses, needlegrasses	SCSC	RACO, ECAN
GLHMT050b	Mountrail	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN
GLHMT050c	Mountrail	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN
GLHMT051a	Mountrail	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN, RACO
GLHMC051a	McKenzie	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN, RACO
GLHMC055a	McKenzie	ECAN, bluestem grasses	SCSC	ECAN, RACO
GLHMC127a	McKenzie	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN, RACO
GLHMC131a	McKenzie	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN, RACO, ERsp
GLHMC134a	McKenzie	ECAN, bluestem grasses, needlegrasses	SCSC	ECAN, RACO, ERsp
GLHMC137a	McKenzie	ECAN, ECPA, bluestem grasses, needlegrasses, Gasp	SCSC	ECAN, RACO, ERsp, RUHI
GLHMC152a	McKenzie	Bluestem grasses, ECAN	SCSC	RACO, ECAN
GLHMC157a	McKenzie	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	ECAN, ECPA, RACO, ERsp
GLHMC158a	McKenzie	Needlegrasses, ECAN, ECPA	SCSC	ECAN, ECPA
GLHMC158b	McKenzie	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	ECAN, ECPA
GLHMC169a	McKenzie	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU001a	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, RUHI, ECAN
GLHDU031a	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU031b	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU032a	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU032c	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU033a	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	ECAN
GLHDU033b	Dunn	Bluestem grasses, needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU034a	Dunn	Needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA, ERsp
GLHDU034b	Dunn	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA, ERsp

Appendix D. Habitat features and suitability of grasslands for Dakota skipper in the DAPL Project Environmental Survey Corridor.

Site ID Number[1]	County	Typical Bluestem and Upland Prairie Plants[2]	Larval Food Plants[2]	Nectar Plants[2]
GLHDU034c	Dunn	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA, ERsp
GLHDU035a	Dunn	Needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA
GLHDU048a	Dunn	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	RACO, ERsp, ECAN, ECPA
GLHDU077a	Dunn	Needlegrasses, ECAN	SCSC	RACO, ECAN
GLHDU093a	Dunn	Needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA
GLHDU094b	Dunn	TBD	TBD	TBD
GLHDU094c-1	Dunn	Bluestem grasses, needlegrasses, ECAN, ECPA	SCSC	RACO, ECAN, ECPA

[1] All grasslands in this table have predominantly native species.
[2] Plant species codes:
ECAN – *Echinacea angustifiolia*; blacksamson Echinacea
ECPA – *Echinacea pallida*; pale purple coneflower
CARO - *Campanula rotundifolia*; bluebell bellflower
SCSC – *Schizachyrium scoparium*; little bluestem
RACO - *Ratibida columnifera*; upright prairie coneflower
RUHI - *Rudbeckia hirta*; black-eyed susan
GAsp. - *Gaillardia* spp.; blanketflowers
ERsp. – *Erigeron spp.*; fleabane
TBD – Site was found to be mostly native species in 2014 but further investigation during summer 2015 required to determine suitability.

E.3

WEST 2014 Prairie Dog Town Survey Memo

ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 ◆ www.west-inc.com ◆ Fax: 701-250-1761

December 18, 2014

Joe Sedarski
Merjent. Inc.
TractorWorks Building
800 Washington Avenue N.
Minneapolis, MN 55401

RE: DAPL Project Prairie Dog Town Survey

Dear Mr. Sedarski,

At your direction, and on behalf of Dakota Access, LLC, Western EcoSystems Technology, Inc. (WEST) mapped prairie dog towns in North Dakota along the Dakota Access Pipeline Project (DAPL).

An assessment was conducted in 2014 to locate and describe grasslands along the DAPL Project route (corridor width 400 feet [ft] wide [122 meters {m}]) in North Dakota. As part of the habitat review, WEST also mapped prairie dog towns that were encountered within accessible lands. Results of the 2014 prairie dog town mapping effort are included below. Information from the prairie dog town mapping effort can be used to plan for or identify the need for future black-footed ferret survey efforts. The black-footed ferret is an endangered species that relies almost exclusively on prairie dogs for food and their burrows for shelter.

A total of 5 prairie dog towns were mapped on lands surveyed in 2014 (Table 1). All towns were located in Morton County. Towns varied in size from 1.38 to 69.07 acres, including areas outside of the survey corridor. Additional towns may be identified during surveys in 2015.

Table 1. Prairie dog towns mapped along the DAPL Project in 2014.

Town ID	Mile Post	Acres	Hectares
PD-MO192a	161.76	13.88	5.62
PD-MO118a	138.31	4.77	1.93
PD-MO131a	141.29	1.38	0.56
PD-MO184a	159.15	69.07	27.95

In addition to the prairie dog towns identified during field surveys, WEST completed a desktop review of the entire 400 foot wide corridor as defined on November 6, 2014 using aerial photographs. This desktop review identified one additional potential prairie dog town located at milepost 127.28, east of the Heart River in Morton County.

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None of the prairie dog towns was equal to or greater than the minimum threshold of 80 acres per town that is needed to meet the requirements for potential black-footed ferret habitat and thus requiring surveys. Additionally, WEST reviewed recent aerial photographs and did not locate any additional towns within 7 km of those mapped. Again, indicating that the mapped towns do not meet the minimum requirements for potential black-footed ferret habitat.

Results from the field survey and desktop analysis efforts are also presented on the Environmental Features maps (Exhibit A.4) in the DAPL Project North Dakota Public Service Commission Application.

Please let me know if you need anything further.

Sincerely,

Clayton Derby,
Senior Manager